
Actuarial Section

Report of the Actuary on the Annual Valuation
of the Retiree Medical and Life Insurance Plans

for Fiscal Year ending June 30, 2009



PHOTO COURTESY OF THE KENTUCKY HISTORICAL SOCIETY

**Clifty School, 1910
Warren County, Kentucky**



Cavanaugh Macdonald CONSULTING, LLC

December 14, 2009

Board of Trustees
Teachers' Retirement System of the State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Governmental Accounting Standards Board Statements No. 43 and 45 require the Teachers' Retirement System of the State of Kentucky (the System) to conduct actuarial valuations of the System's retiree medical and other post employment benefit plans. This report covers the Medical Insurance Fund and OPEB liabilities related to the Life Insurance Fund. Cavanaugh Macdonald Consulting, LLC (CMC) has submitted the results of the annual actuarial valuation prepared as of June 30, 2009. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of 14.36% of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2012 is required to support the benefits of the Kentucky Employees Health Plan and the Medicare Eligible Health Plan. Of this amount, 0.75% of payroll is paid by those members entering the system prior to July 1, 2008 and 1.75% of payroll is paid by those members entering the System on or after July 1, 2008, leaving 13.61% and 12.61% respectively, as the State contribution. This required State contribution reflects the assets currently held in the Medical Insurance Fund. As the State contributions are less than the required levels, the discount rate for valuing liabilities is 4.5%. Schedule A shows the decrease in liabilities of the medical plans if the required contributions were made each year and the funded discount rates of 7.5% or 8.0% could be utilized.

The Medical Insurance Fund valuation takes into account the effect of amendments to the medical plans enacted through the most recent session of the Legislature. Several changes were made to the assumptions and methods used to determine the liability. The results of this valuation include a reduction in future payments estimated to be made by the System by providing prescription drug benefits to Medicare eligible retirees under a fully insured Prescription Drug Plan (PDP) where, under GASB 43 and 45, subsidies may be recognized. Additionally, changes were made to the expected rates of participation, starting per capita claims costs, dependent coverage subsidies, the assumed rate of health care inflation, and the relationship of cost between ages. The actuarial accrued liability increased from \$6.4 billion in 2008 to \$6.5 billion in 2009.

The Life Insurance Fund valuation indicates a total annual required contribution of 0.05% of active member payroll payable for the fiscal year ending June 30, 2012 is required to support the benefits of the Life Insurance Fund. The current contribution rate of 0.17% of active member payroll payable for the fiscal year ending June 30, 2012 exceeds the amount sufficient to support the benefits of the Life Insurance Fund. With the State contributions to the Life Insurance Funds exceeding the required levels, the discount rate for valuing liabilities is 7.5%.

The promised benefits of the medical and life insurance plans are included in the actuarially calculated contribution rates which are developed using the unit credit actuarial cost method with projected benefits. The market value of plan assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 4.0% annually. The assumptions recommended by the actuary and adopted by the Board are in aggregate reasonably related to the experience under the medical and life insurance plans and to reasonable expectations of anticipated experience under the medical and life insurance plans and meet the parameters for the disclosures under GASB 43 and 45.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Year Ended June 30, 2009

Board of Trustees
December 14, 2009
Page 2

CMC has prepared the trend information shown in the Schedule of Funding Progress and the Schedule of Employer Contributions in the Financial Section of the Annual Report and Schedule A and Schedule C shown in the Actuarial Section of the Annual Report.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the medical and life insurance plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the plans.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

In our opinion, if the State contributions to the Medical Insurance Fund are increased to the required levels, the medical plans will begin to operate in an actuarially sound basis. Assuming that required contributions to the Medical Insurance Fund are made by the employer from year to year in the future at the levels required on the basis of the successive actuarial valuations, the actuarial soundness of the Medical Insurance Fund to provide the benefits called for under the medical plans will improve.

Respectfully submitted,



Eric Gary, FSA, FCA, MAAA
Senior Actuary



Alisa Bennett, ASA, EA, FCA, MAAA
Principal and Senior Actuary

Report of Actuary on the on the Annual Valuation of the Retiree Medical and Life Insurance Plans

Prepared as of June 30, 2009

Section I - Summary of Principal Results

- For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below (all dollar amounts are \$1,000's):

~ Medical Insurance Fund ~			
Valuation Date	June 30, 2009		June 30, 2008
Number of active members	75,937		75,539
Annual salaries	\$ 3,253,077		\$ 3,190,332
Number of annuitants in medical plans	33,481		32,591
Number of spouses and beneficiaries in medical plans*	<u>6,808</u>		<u>6,678</u>
Total	40,289		39,269
Assets:			
Market value	\$ 229,103		\$ 185,883
Unfunded actuarial accrued liability	\$ 6,225,630		\$ 6,248,639
Amortization period (years)	30		30
Discount rate	4.50%		4.50%
Contribution for fiscal year ending:	June 30, 2012		June 30, 2011
	Hired prior to 7/1/08	Hired on or after 7/1/08	
Normal	7.53%	7.53%	7.60%
Accrued liability	<u>6.83%</u>	<u>6.83%</u>	<u>6.99%</u>
Total	14.36%	14.36%	14.59%
Member	0.75%	1.75%	0.75%
State (ARC)	<u>13.61%</u>	<u>12.61%</u>	<u>13.84%</u>
Total	14.36%	14.36%	14.59%
* Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, pay 100% of the full contribution. 100% of the full contribution for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State.			
~ Life Insurance Fund ~			
Valuation Date	June 30, 2009		June 30, 2008
Number of active members	75,937		75,539
Annual salaries	\$ 3,253,077		\$ 3,190,332
Number retirees in Life Insurance Plan	38,958		37,778
Assets:			
Market value	\$ 84,703		\$ 77,658
Unfunded actuarial accrued liability*	\$ 5,631		\$ 6,607
Amortization period (years)	30		30
Discount rate	7.50%		7.50%
Contribution for fiscal year ending:	June 30, 2012		June 30, 2011
Normal	0.04%		0.04%
Accrued liability	<u>0.01%</u>		<u>0.01%</u>
Total	0.05%		0.05%



* Includes liability for death in active service. This amount could be segregated from the OPEB liability and assets could be split for active and post employment purposes. However, since this could be administratively burdensome and since death in active service liabilities can be considered de minimis, it is acceptable to consider the entire liability an OPEB liability under GASB 43 and 45.

2. The valuation indicates combined member and State contributions of 14.36% of active member payroll would be sufficient to support the current benefits of the medical plans and State contributions of 0.05% of active member payroll would be sufficient to support the current benefits of the life insurance plan. Comments on the valuation results as of June 30, 2009 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.
3. Schedule C of this report outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been several changes made to the assumptions and methods used to determine the liability since the previous valuation. The results of this valuation include a reduction in future payments estimated to be made by the System by providing prescription drug benefits to Medicare eligible retirees under a fully insured Prescription Drug Plan, changes made to the expected rates of participation, starting per capita claims costs, dependent coverage subsidies, the assumed rate of health care inflation, and the relationship of cost between ages.
4. The valuation takes into account the effect of amendments to the medical plans enacted through the most recent session of the Legislature.
5. All amounts shown prior to the 2005 valuation year were developed and/or reported by the prior actuarial firm.

Section II - MEMBERSHIP DATA

1. Data regarding the membership of the medical and life insurance plans for use as a basis of the valuation were furnished by the System office. The following table shows the number of active members and their annual salaries as of June 30, 2009 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries (\$1,000's)
Full Time	56,219	\$ 3,026,198
Part Time	<u>19,718</u>	<u>226,879</u>
Total	<u><u>75,937</u></u>	<u><u>\$ 3,253,077</u></u>



Section III - ASSETS

1. As of June 30, 2009 the market value of Medical Insurance Fund assets for valuation purposes held by the medical plans amounted to \$229,103,015 and the market value of Life Insurance Fund assets for valuation purposes held by the life insurance plan amounted to \$84,702,634.
2. Schedule B shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the Medical Insurance Fund and the Life Insurance Fund.

Section IV - COMMENTS ON VALUATION

1. Schedule A of this report outlines the results of the actuarial valuation and illustrates the benefits of pre-funding the liability for the medical and life insurance plans. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule C.
2. The valuation shows that the medical plans have an actuarial accrued liability of \$3,250,990,231 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability on account of benefits payable to retirees and covered spouses amounts to \$3,203,742,794. The total actuarial accrued liability of the medical plans amounts to \$6,454,733,025. Against these liabilities, the medical plans have present assets for valuation purposes of \$229,103,015. When this amount is deducted from the actuarial accrued liability of \$6,454,733,025 there remains \$6,225,630,010 as the unfunded actuarial accrued liability for the medical plans.
3. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the medical plans is determined to be \$245,037,866, or 7.53% of payroll.
4. The valuation shows that the life insurance plan has an actuarial accrued liability of \$18,352,634 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability on account of benefits payable to retirees and covered spouses amounts to \$71,981,484. The total actuarial accrued liability of the life insurance plan amounts to \$90,334,118. This amount includes liability for death in active service. The liability for death in active service could be segregated from the OPEB liability and assets could be split for active and post employment purposes. As this could be administratively burdensome and, as death in active service liabilities can be considered de minimis, it is acceptable to consider the entire liability an OPEB liability under GASB 43 and 45. Against these liabilities, the life insurance plan has present assets for valuation purposes of \$84,702,634. When this amount is deducted from the actuarial accrued liability of \$90,334,118 there remains \$5,631,484 as the unfunded actuarial accrued liability for the life insurance plan.
5. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the life insurance plan is determined to be \$1,206,829, or 0.04% of payroll.



Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 161.420(5) of the Kentucky Revised Statutes provides that the State will contribute 0.75% of salary to the Medical Insurance Fund. Member contributions will be 1.75% for those who became members of the System on or after July 1, 2008 and 0.75% for all other members. CMC recommends the State contribution increase to the required amount of 13.61% of payroll for those employees hired prior to 7/1/2008 and 12.61% of payroll for those hired on or after 7/1/2008. The State is currently contributing 0.17% of salary to the Life Insurance Fund. CMC's valuation indicates a contribution of 0.05% is required to sufficiently support the benefits of the life insurance plan.

Required Contribution Rates For Fiscal Year Ending June 30, 2012			
	Medical Insurance Fund		Life Insurance Fund
Normal	7.53%		0.04%
Accrued liability	6.83%		0.01%
Total	14.36%		0.05%
	Hired prior to 7/1/08	Hired on or after 7/1/08	
Member	0.75%	1.75%	0.00%
State (ARC)	13.61%	12.61%	0.05%
Total	14.36%	14.36%	0.05%

2. The valuation indicates that a total normal contribution of 7.53% of payroll is required to meet the cost of benefits currently accruing under the medical plans and 0.04% of payroll is required to meet the cost of benefits currently accruing under the life insurance plan. The difference between the total contribution and the normal contribution remains to be applied toward the liquidation of the unfunded actuarial accrued liability. This accrued liability payment is 6.83% of payroll for the medical plans and 0.01% of payroll for the life insurance plan.
3. The unfunded actuarial accrued liability amounts to \$6,225,630,010 for the medical plans and \$5,631,484 for the life insurance plan as of the valuation date. An accrued liability contribution of 6.83% of payroll for the medical plans and 0.01% of payroll for the life insurance plan is sufficient to amortize the unfunded actuarial accrued liabilities over a 30-year period, based on the assumption that the payroll will increase by 4.0% annually.



Section VI - COMMENTS ON LEVEL OF FUNDING

1. The System's monthly contribution for retirees to opt into the medical plan is based upon date of hire and years of service at retirement. Additionally, beneficiary contributions may vary by plan election, Medicare eligibility and tobacco use. Beneficiary contributions for dependents are targeted to be 100% of the cost of expected claims for spouses age 65 and older. Historically, this target has been achieved. 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State. Current employer contributions have been determined to be insufficient to fund the cost of the benefits to be provided. Benefits and contributions for university and non-university members are identical.
2. The valuation indicates that a significant increase in contributions is required to fund the medical plans in an actuarially sound manner and to ensure the future solvency of the Medical Insurance Fund. For those who became members of the System on or after July 1, 2008, a member contribution of 1.75% of payroll together with a state contribution of 12.61% of payroll is required to meet the cost of benefits currently accruing and provide for the amortization of the unfunded actuarial accrued liability over a period of 30 years. For those who became members of the System prior to July 1, 2008, a member contribution of 0.75% of payroll together with a state contribution of 13.61% of payroll is required to meet the cost of benefits currently accruing and provide for the amortization of the unfunded actuarial accrued liability over a period of 30 years.

Section VII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the medical and life insurance plans and the employer.

Number of Active and Retired Members in Medical Plan as of June 30, 2009		Number of Active and Retired Members in Life Insurance Plan as of June 30, 2009	
GROUP	NUMBER	GROUP	NUMBER
Retirees currently receiving health benefits	33,481	Retirees	38,958
Spouses of retirees currently receiving health benefits	6,808	Active plan members	<u>75,937</u>
Active plan members	<u>75,937</u>	Total	<u>114,895</u>
Total	<u>116,226</u>		



Schedule of Funding Progress Medical Insurance Fund <i>(Dollar amount in thousands)</i>						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Projected Unit Credit (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
6/30/2003	\$ 165,537	\$ 2,886,000	\$ 2,720,463	5.7%	\$ 2,497,731	108.9%
6/30/2004	158,862	3,166,568	3,007,706	5.0	2,641,533	113.9
6/30/2005	147,311	4,763,947	4,616,636	3.1	2,703,430	170.8
6/30/2006*	131,614	4,341,963	4,210,349	3.0	2,859,477	147.2
6/30/2007**	140,772	5,928,761	5,787,989	2.4	2,975,289	194.5
6/30/2008	185,883	6,434,522	6,248,639	2.9	3,190,332	195.9
6/30/2009***	229,103	6,454,733	6,225,630	3.5	3,253,077	191.4
*Reflects change in decrement assumptions and plan design. **Reflects change in discount rate to 4.5% and updating medical trend. ***Reflects change in participation assumptions and plan design.						

Schedule of Funding Progress Life Insurance Fund <i>(Dollar amount in thousands)</i>						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Projected Unit Credit (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
6/30/2007	\$ 71,426	\$ 82,722	\$ 11,296	86.3%	\$ 2,975,289	0.38%
6/30/2008	77,658	84,265	6,607	92.2	3,190,332	0.21
6/30/2009	84,703	90,334	5,631	93.8	3,253,077	0.17

2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2009. Additional information as of the latest actuarial valuation follows.

Valuation Date	06/30/2009	Actuarial Assumptions:
Actuarial cost method	Projected unit credit	<u>Investment Rate of Return*</u>
Amortization method	Level percent of pay, open	4.50%for Medical &
Remaining amortization period	30 years	7.50% for Life Insurance
Asset valuation method	Market Value of Assets	<u>Healthcare Trend Rate*</u>
		10.50%
		<u>Ultimate Trend Rate</u>
		5.00%
		<u>Year of Ultimate Trend Rate</u>
		2017
		*Includes Inflation at 4.00%



Schedule of Employer Contributions Medical Insurance Fund					
Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	Retiree Drug Subsidy Contribution (c)	Total Contribution (b) + (c)	Percentage of ARC Contributed [(b) + (c)] / (a)]
6/30/2007	\$ 231,473,321	\$ 113,258,761	\$ 10,312,361	\$ 123,571,122	53.4%
6/30/2008	395,282,164	148,954,644	11,911,565	160,866,209	40.7
6/30/2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1

Schedule of Employer Contributions Life Insurance Fund				
Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	Percentage of ARC Contributed (b) / (a)	
6/30/2007	\$ 1,785,173	\$ 5,022,137	281.3%	
6/30/2008	1,914,199	5,411,249	282.7	
6/30/2009	1,498,076	5,455,473	364.2	

3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2009. As the medical and life insurance plans are cost-sharing multiple-employer plans, GASB Statement 45 does not require the participating employers to disclose this information.

Annual OPEB Cost and Net OPEB Obligation for the Medical Insurance Fund for Fiscal Year Ending June 30, 2009	
(a) Employer Annual Required Contribution	\$ 467,312,904
(b) Interest on Net OPEB Obligation	10,548,718
(c) Adjustment to Annual Required Contribution	<u>8,369,404</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	469,492,218
(e) Employer contributions for Fiscal Year 2009	<u>178,091,867</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	291,400,351
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>234,415,955</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>\$ 525,816,306</u></u>



Trend Information for the Medical Insurance Fund

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$ 395,282,164	40.7%	\$ 234,415,955
6/30/2009	469,492,218	37.9	525,816,306

**Annual OPEB Cost and Net OPEB Obligation
for the Life Insurance Fund for Fiscal year Ending June 30, 2009**

(a) Employer Annual Required Contribution	\$ 1,498,076
(b) Interest on Net OPEB Obligation	(262,279)
(c) Adjustment to Annual Required Contribution	<u>(180,859)</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	1,416,656
(e) Employer contributions for Fiscal Year 2009	<u>5,455,473</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	(4,038,817)
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>(3,497,050)</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>(\$7,535,867)</u></u>

Trend Information for the Life Insurance Fund

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$ 1,914,199	282.7%	(\$3,497,050)
6/30/2009	1,416,656	385.1	(7,535,867)



SCHEDULE A
Benefits of Pre-Funding Medical Plan
(1,000's)

	Pay-As-You-Go Discount Rate 4.50%	Pre-Funding Discount Rate 7.50%	Pre-Funding Discount Rate 8.00%			
PAYROLL	\$ 3,253,077	\$ 3,253,077	\$ 3,253,077			
ACTUARIAL ACCRUED LIABILITY						
Present value of prospective benefits payable in respect of:						
(a) Present active members:	\$ 3,250,990	\$ 1,689,955	\$ 1,536,618			
(b) Present retired members and covered spouses:	<u>3,203,743</u>	<u>2,288,593</u>	<u>2,179,273</u>			
(c) Total actuarial accrued liability	6,454,733	3,978,548	3,715,891			
PRESENT ASSETS FOR VALUATION PURPOSES	<u>229,103</u>	<u>229,103</u>	<u>229,103</u>			
UNFUNDED ACTUARIAL ACCRUED LIABILITY	<u>\$ 6,225,630</u>	<u>3,749,445</u>	<u>3,486,788</u>			
CONTRIBUTIONS FOR FISCAL YEAR ENDING JUNE 30, 2012:						
Normal	7.53 %	3.42 %	3.05 %			
Accrued Liability	<u>6.83</u>	<u>5.96</u>	<u>5.86</u>			
Total	14.36 %	9.38 %	8.91 %			
	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08	Hired prior to 7/1/08	Hired on or after 7/1/08
Member	0.75%	1.75%	0.75%	1.75%	0.75%	1.75%
State (ARC)	<u>13.61</u>	<u>12.61</u>	<u>8.63</u>	<u>7.63</u>	<u>8.16</u>	<u>7.16</u>
Total	14.36%	14.36%	9.38%	9.38%	8.91%	8.91%

SCHEDULE B
MEDICAL INSURANCE FUND
Summary of Receipts & Disbursements
(Market Value)

	<i>For the Year Ending</i>	
RECEIPTS FOR THE YEAR	<u>June 30, 2009</u>	<u>June 30, 2008</u>
Contributions		
Members Statutory	\$ 25,134,252	\$ 24,125,800
Payment by Retired Members	<u>33,554,515</u>	<u>31,277,030</u>
Total Members	58,688,767	55,402,830
State Statutory Contributions	25,022,737	23,929,322
State Special	0	0
General Fund Surplus (6/2006)	0	0
Allotment from Pension Fund	<u>139,385,300</u>	<u>125,000,000</u>
Total Employer	164,408,037	148,929,322
Grand Total	223,096,804	204,332,152
Recovery Income	72,082	25,322
Medicare D Receipts	13,611,748	11,911,565
Net Investment Income	<u>11,296,280</u>	<u>8,128,179</u>
TOTAL	248,076,914	224,397,218
Disbursements for the Year		
Refunds to Members	0	10,015
Medical Insurance Expense	<u>204,857,122</u>	<u>179,276,215</u>
TOTAL	204,857,122	179,286,230
Excess of Receipts over Disbursements	43,219,792	45,110,988
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	185,883,223	140,772,235
Excess of Receipts over Disbursements	<u>43,219,792</u>	<u>45,110,988</u>
Asset Balance as of the End of the Year	<u>\$ 229,103,015</u>	<u>\$ 185,883,223</u>



SCHEDULE B (continued)
LIFE INSURANCE FUND
Summary of Receipts & Disbursements
(Market Value)

	For the Year Ending	
	<u>June 30, 2009</u>	<u>June 30, 2008</u>
<u>RECEIPTS FOR THE YEAR</u>		
Contributions		
Members	\$ 0	\$ 0
Employers	<u>5,455,473</u>	<u>5,411,249</u>
Total	5,455,473	5,411,249
Net Investment Income	<u>5,282,958</u>	<u>6,321,491</u>
TOTAL	10,738,431	11,732,740
<u>DISBURSEMENTS FOR THE YEAR</u>		
Benefits Payments	3,694,000	4,003,000
Refunds to Members	0	0
Medical Insurance Payments	0	0
Miscellaneous, including expenses	<u>0</u>	<u>0</u>
TOTAL	3,694,000	4,003,000
<u>EXCESS OF RECEIPTS OVER DISBURSEMENTS</u>	<u>7,044,431</u>	<u>7,729,740</u>
<u>RECONCILIATION OF ASSET BALANCES</u>		
Asset Balance as of the Beginning of the Year	77,658,203	69,928,463
Excess of Receipts over Disbursements	<u>7,044,431</u>	<u>7,729,740</u>
Asset Balance as of End of the Year	<u>\$ 84,702,634</u>	<u>\$ 77,658,203</u>

SCHEDULE C
Outline of Actuarial Assumptions and Methods

The rates of retirement, disability, mortality, and termination used in the valuation were selected by the Actuary based on the actuarial experience investigation as of June 30, 2005 and adopted by the Board of Trustees on September 18, 2006. The discount rate, rates of future participation, health care cost trend rates, and expected plan costs were determined by the actuary based on plan experience.

Valuation Date: June 30, 2009

Discount Rate: 4.5% per annum, compounded annually for medical plans
7.5% per annum, compounded annually for life insurance plan



KENTUCKY TEACHERS' RETIREMENT SYSTEM

Health Care Cost Trend Rates: Following is a chart detailing trend assumptions.

<u>Fiscal Year</u>	<u>Trend</u>
2010	10.5 %
2011	9.5
2012	8.5
2013	7.5
2014	6.5
2015	6.0
2016	5.5
2017 and beyond	5.0

Age Related Morbidity: For retirees age 65 and older, per capita costs are adjusted to reflect expected medical cost changes related to age. The increase to the net incurred claims was assumed to be:

<u>Participant Age</u>	<u>Annual Increase</u>
65 - 69	3.0 %
70 - 74	2.5
75 - 79	2.0
80 - 84	1.0
85 - 89	0.5
90 and over	0.0

Anticipated Plan Participation: Representative values of the assumed annual rates of medical plan participation are as follows:

			<u>Hired 6/30/02 and earlier</u>		
<u>Years of Service</u>	<u>Hired 7/1/08 and later</u>	<u>Hired after 6/30/02 and before 7/1/08</u>	<u>Years of Service</u>	<u>Age 65 on 12/31/04 and earlier</u>	<u>Age 65 on 1/1/05 and later</u>
5-9.99	Not Eligible	10 %	5-9.99	70%	25%
10-14.99	Not Eligible	25	10-14.99	80	50
15-19.99	45%	45	15-19.99	90	75
20-24.99	65	65	20-24.99	93	93
25-25.99	90	90	25-25.99	93	93
26-26.99	93	93	26-26.99	93	93
27 or more	93	93	27 or more	93	93



Separations From Service: Representative values of the assumed annual rates of death, disability, withdrawal, service retirement and early retirement are as follows:

MALES: Annual Rate of . . .							
AGE	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			SERVICE			Before 27 Years of Service	After 27 Years of Service*
			0 - 4	5 - 9	10+		
20	0.003%	0.01%	9.00%				
25	0.010	0.01	9.00	1.50%			
30	0.016	0.02	9.00	3.00	3.00%		
35	0.032	0.05	10.00	3.25	1.50		
40	0.048	0.08	10.00	3.75	1.50		
45	0.064	0.22	9.50	2.50	1.50		25.0%
50	0.104	0.42	10.00	4.00	3.00		20.0
55	0.216	0.60	11.00	3.00	2.70	6.0%	35.0
60	0.375	0.79	11.00	3.00	2.70	14.0	25.0
62	0.438	0.83	11.00	3.00	2.70	14.0	23.0
65	0.566	0.90	11.00	3.00	2.70	22.5	35.0
70	0.905	0.00	0.00	0.00	0.00	100.0	100.0

* Plus 5% before age 55 and 15% after age 55 in year when first eligible for unreduced retirement with 27 years of service.

FEMALES: Annual Rate of . . .							
AGE	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			SERVICE			Before 27 Years of Service	After 27 Years of Service*
			0 - 4	5 - 9	10+		
20	0.002%	0.03%	6.00 %				
25	0.007	0.03	8.50	3.00 %			
30	0.014	0.04	9.00	4.00	1.50%		
35	0.026	0.11	8.50	4.00	2.00		
40	0.044	0.22	8.50	2.50	1.50		
45	0.055	0.38	7.00	2.50	1.50		25.0%
50	0.066	0.44	8.50	3.00	2.25		20.0
55	0.085	0.56	10.00	3.50	2.50	7.5%	35.0
60	0.122	0.85	11.00	3.50	2.50	16.5	30.0
62	0.137	0.85	11.00	3.50	2.50	12.5	25.0
65	0.159	0.85	11.00	3.50	2.50	26.0	30.0
70	0.195	0.00	0.00	0.00	0.00	100.0	100.0

* Plus 5% before age 55 and 20% after age 55 in year when first eligible for unreduced retirement with 27 years of service.



KENTUCKY TEACHERS' RETIREMENT SYSTEM

Deaths After Retirement: According to the 1994 Group Annuity Mortality table for the period after service retirement. Special rates are used for the period after disability retirement. Representative values of the assumed annual rates of death after service and disability retirement are as follows:

**Annual Rate of
Death After . . .**

Age	Service Retirement		Disability Retirement	
	MALE	FEMALE	MALE	FEMALE
45	0.1578 %	0.0973 %	6.500 %	6.500 %
50	0.2579	0.1428	10.000	10.000
55	0.4425	0.2294	10.000	10.000
60	0.7976	0.4439	9.000	9.000
65	1.4535	0.8636	10.000	10.000
70	2.3730	1.3730	6.500	4.500
75	3.7211	2.2686	7.000	6.000
80	6.2027	3.9396	10.000	6.500
85	9.7240	6.7738	12.500	7.500
90	15.2931	11.6265	15.000	17.500
95	23.3606	18.6213	23.368	31.702

Actuarial Method: Costs were determined using the Projected Unit Credit Actuarial Cost Method. The annual service cost is the present value of the portion of the projected benefit attributable to participation service during the upcoming year, and the Actuarial Accrued Liability (AAL) is equal to the present value of the portion of the projected benefit attributable to service before the valuation date. Service from hire date through the date of full retirement eligibility was used in allocating costs.

Assets: Market Value as provided by KTRS. Return on assets assumed to be 4.50% for the Medical Insurance Fund and 7.50% for the Life Insurance Fund.

Spouse Coverage: Use actual census data and current plan elections for spouses of current retirees. For spouses of future retirees, assumed 20% of future retirees will cover spouses, with females 3 years younger than males.

Medical Plan Costs: Assumed per capita health care costs were based on past experience and trended based on the assumptions. Following is a chart detailing retiree per capita assumptions. These amounts include medical, drug, and administrative costs and represent the amount that KTRS pays as the full contribution amount. For retirees age 65 and older, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

<u>Year</u>	Average Monthly KTRS Full Costs & Contributions		
	<u>Pre-65 Full Cost and Contributions</u>	<u>Post-65 Full Costs</u>	<u>Post-65 Contributions</u>
CY 2004	\$ 293	\$ 274	\$ 274
CY 2005	412	288	288
CY 2006	461	315	315
CY 2007	458	283	283
CY 2008	484	278	278
CY 2009	545	301*	285
CY 2010	594	373*	342

** Under GASB 43 and 45, cost reductions for the amount of the Medicare Part D Retiree Drug Subsidy cannot be taken into account in the gross cost calculations.*



SCHEDULE D
**Summary of Main Plan Provisions as
Interpreted for Valuation Purposes**

RETIREE MEDICAL ELIGIBILITY: For those hired prior to July 1, 2008, retiree medical eligibility is attained when an employee retires, which is possible after the completion of 27 years of service or attainment of age 55 and 5 years of service. For those hired on or after July 1, 2008, employees may retire after the completion of 27 years of service, the attainment of age 55 and 10 years of service, or the attainment of age 60 and 5 years of service, but must complete a minimum of 15 years of service to be eligible for medical benefits. Disabled employees, who are totally and permanently incapable of being employed as a teacher and under age 60, but after completing the minimum years of service requirement, are eligible for subsidized retiree medical coverage that is based on the number of years of service credit accrued at disability retirement. At the expiration of the disability entitlement period, the subsidy is recalculated based upon the number of years of service credit that would have accrued had the member remained active. Spouses of those actives who die while eligible to retire are eligible for retiree medical coverage when the death occurred prior to July 1, 2002.

MEDICAL PLAN CONTRIBUTIONS: The full contribution is provided to retirees with 27 or more years of service. The full contribution is determined by KTRS; the full cost is projected based on historical claims data. For retirees with less than 27 years of service, the following percentages of these full contributions are provided:

Percentage of Full Medical Contribution Provided to Retirees				
Years of Service	Hired before 7/1/02 (age 65 on 12/31/04 or earlier)	Hired Before 7/1/02 (age 65 on 1/1/05 or later)	Hired after 6/30/02 and before 7/1/08	Hired 7/1/08 and later
27 or more	100 %	100 %	100 %	100 %
26 - 26.99	100	100	95	95
25 - 25.99	100	100	90	90
20 - 24.99	100	100	65	65
15 - 19.99	90	75	45	45
10 - 14.99	80	50	25	Not Eligible
5 - 9.99	70	25	10	Not Eligible

Effective 1/1/2009, contributions towards pre-65 retirees and spouses healthcare are based upon the Commonwealth Capital Choice Plan which has a total rate of \$594.14 per month for Single Coverage. A minimum contribution of \$5.00 is required to be paid by all pre-65 retirees and an additional \$24.00 per month contribution is required for pre-65 retiree smokers.

Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, pay 100% of the full contribution. For spouses of active members who died while eligible to retire, prior to July 1, 2002, KTRS provides the same subsidy they would have provided to the retiree for the lifetime of the spouse, or until remarriage. For spouses of active members who die while eligible to retire July 1, 2002, or later, spouses pay 100% of the full contribution.

100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State.



Life Insurance Benefit

(1) Effective July 1, 2000, the Teachers' Retirement System shall:

(a) Provide a life insurance benefit in a minimum amount of five thousand dollars (\$5,000) for its members who are retired for service or disability. This life insurance benefit shall be payable upon the death of a member retired for service or disability to the member's estate or to a party designated by the member on a form prescribed by the retirement system; and

(b) Provide a life insurance benefit in a minimum amount of two thousand dollars (\$2,000) for its active contributing members. This life insurance benefit shall be payable upon the death of an active contributing member to the member's estate or to a party designated by the member on a form prescribed by the retirement system.

Note: Qualified members working 45 days per year will be eligible for survivor benefits and a life insurance benefit for the balance of the fiscal year and disability benefits under certain conditions. For substitute and part-time members, the survivor benefits and life insurance benefit are provided during the first 44 days if death occurs as the result of a physical injury on the job. The disability benefit is available as a direct result of a physical injury on the job during the five-year vesting period. After vesting, the disability benefit is available upon working 45 days for the balance of that fiscal year in accordance with the regular KTRS disability program.



SCHEDULE E
Age - Service Table
Distribution of Active Members as of June 30, 2009
by Age and Service Groups

Attained Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	>= 35	TOTAL
24 & under	2,595								2,595
Total Pay	39,745,490								39,745,490
Avg. Pay	15,316								15,316
25 to 29	7,615	1,290							8,905
Total Pay	227,008,336	57,380,853							284,389,189
Avg. Pay	29,811	44,481							31,936
30 to 34	3,882	4,670	830						9,382
Total Pay	113,269,413	218,043,692	44,291,642						375,604,747
Avg. Pay	29,178	46,690	53,363						40,035
35 to 39	3,010	2,545	3,984	662					10,201
Total Pay	79,647,918	121,131,930	221,265,021	39,293,353					461,338,222
Avg. Pay	26,461	47,596	55,538	59,356					45,225
40 to 44	3,840	1,648	2,095	2,717	664				10,964
Total Pay	79,186,648	79,487,856	116,421,557	166,421,024	41,840,206				483,357,291
Avg. Pay	20,622	48,233	55,571	61,252	63,012				44,086
45 to 49	1,939	1,291	1,361	1,452	2,172	600			8,815
Total Pay	48,445,446	63,598,288	77,417,070	89,497,680	138,769,270	39,410,174			457,137,928
Avg. Pay	24,985	49,263	56,882	61,638	63,890	65,684			51,859
50 to 54	1,697	1,024	1,183	1,249	1,374	1,625	538		8,690
Total Pay	33,728,120	51,433,269	67,764,908	76,847,143	90,516,215	109,873,901	36,696,325		466,859,881
Avg. Pay	19,875	50,228	57,282	61,527	65,878	67,615	68,209		53,724
55 to 59	2,797	762	946	1,088	1,174	785	780	117	8,449
Total Pay	45,773,868	40,581,777	56,268,484	69,862,760	78,212,871	54,852,877	58,587,128	9,522,788	413,662,553
Avg. Pay	16,365	53,257	59,480	64,212	66,621	69,876	75,112	81,391	48,960
60 to 64	2,712	425	428	526	532	306	156	124	5,209
Total Pay	37,994,285	22,697,514	26,730,945	33,975,145	36,953,135	22,058,924	13,278,778	11,209,862	204,898,588
Avg. Pay	14,010	53,406	62,455	64,592	69,461	72,088	85,120	90,402	39,335
65 & over	2,055	128	108	105	127	59	53	92	2,727
Total Pay	19,405,654	6,689,343	6,997,460	7,054,833	8,858,222	4,351,813	4,221,793	8,503,592	66,082,710
Avg. Pay	9,443	52,260	64,791	67,189	69,750	73,760	79,656	92,430	24,233
Total	32,142	13,783	10,935	7,799	6,043	3,375	1,527	333	75,937
Total Pay	724,205,178	661,044,522	617,157,087	482,951,938	395,149,919	230,547,689	112,784,024	29,236,242	3,253,076,599
Avg. Pay	22,531	47,961	56,439	61,925	65,390	68,310	73,860	87,797	42,839

Retirees Receiving Health Benefits as of June 30, 2009

	Under 65	Over 65	Total
Number	15,614	17,867	33,481
Average Age	59.7	75.0	67.9



This page was intentionally left blank.